

Claims

1. An optical distance detecting or measuring device, comprising a light source with an emitter optic for projecting a light beam according to the axis of the emitting optic onto a target to be measured, and a first detector defining the receiving axis contained in the same reference plane as the emitting axis, wherein said device comprises at least a second detector that is aligned with the first detector on an axis contained in a plane that is inclined at an angle with respect to the reference plane, said angle being comprised between 10° and 170°.
2. An optical distance detecting or measuring device, comprising at least a first light source with an emitting optic for projecting a light beam according to the axis of the emitting optic onto a target to be measured, and a first detector defining the receiving axis contained in the same reference plane as the emitting axis, wherein said device comprises at least a second light source that is aligned with the first light source on an axis contained in a plane that is inclined at an angle with respect to the reference plane, said angle being comprised between 10° and 170°.
3. An optical distance detecting or measuring device, comprising a light source and receivers, wherein the light source emits light pulses of different intensities that are intended alternatingly for each one of said receivers, the emitted intensities being regulated in such a manner as to produce signals having identical amplitudes or corresponding to a predetermined function on the receivers.
4. The device of claim 1, or 2, comprising a light source and receivers, wherein the light source emits light pulses of different intensities that are intended alternatingly for

each one of said receivers, the emitted intensities being regulated in such a manner as to produce signals having identical amplitudes or corresponding to a predetermined function on the receivers.

5

5. The device of claim 1, 2 or 3, comprising a detecting system in the form of a position-sensitive detector (PSD).

10 6. An optical distance detecting or measuring device, comprising a sensor with a single lens including distinct emitting and receiving sectors, each sector being provided with a prism for focusing the light beams on the emitting and the receiving elements, respectively.

15 7. The device of claim 1, 2, or 3, comprising a sensor with a single lens including distinct emitting and receiving sectors, each sector being provided with a prism for focusing the light beams on the emitting and the receiving elements, respectively.

20

8. The device of claim 1, wherein the receiving system comprises more than two receivers.

25 9. The device of claim 2, wherein the emitting system comprises more than two light sources.

10. The device of claim 1, 2, or 3 comprising a group of several receivers and a group of several emitters, each group being aligned on an axis contained in planes of which 30 each one may be inclined individually with respect to said reference plane.